



Wi-SUN Alliance
16 Saxon Road
Hove, BN3 4LE,
UK
19 August 2019

To: Aileen Chia (Ms)
Deputy Chief Executive (Policy, Regulation & Competition Development),
Director-General (Telecoms & Post)
Infocomm Media Development Authority
10 Pasir Panjang Road
#03-01 Mapletree Business City
Singapore 117438

Via email: Consultation@imda.gov.sg

Subject: Comments in response IMDA consultation paper on proposed policy frameworks for the allocation of 800 MHz, TDD 1900 MHz and FDD 2100 MHz spectrum bands.

Table of Contents

Summary of Major Points	2
Statement of Interest.....	2
Comments.....	2
Conclusion.....	3

Wi-SUN Alliance Comments

1. Wi-SUN Alliance thanks the Singapore Infocommunications Media Development Authority (IMDA) for the opportunity to submit comments consultation paper on proposed policy frameworks for the allocation of 800 MHz, TDD 1900 MHz and FDD 2100 MHz spectrum bands

Summary of Major Points

2. Removal of SRDs from 866 – 869 MHz after 2022 will reduce the bandwidth available for certain SRDs in Singapore from 8 MHz to 5 MHz. This will result in increased interference and congestion in the 920 – 925 MHz band substantially reducing the performance for a number of IoT applications, for example those based on low power, low duty cycle SRDs. This is at a time when there is a growing number of IoT applications operating in unlicensed bands.

3. Wi-SUN Alliance believes that the allocation of an extra 5 MHz of spectrum for SRDs in the 915 – 920 MHz band in addition to the current 920 – 925 MHz band would help to address the increasing number of SRDs for IoT applications.

Statement of Interest

4. The Wi-SUN Alliance is a global industry alliance of utility companies, product vendors, semiconductor manufacturers and governmental organizations with the purpose of promoting interoperable wireless solutions for critical infrastructure IoT applications, such as Utilities and Smart Cities. In addition to developing communications specifications based on open global standards, Wi-SUN Alliance provides a robust testing and certification program for wireless products meeting these application needs.

Comments

5. Comments on Question 1: IMDA seeks views on the proposed allocation approach for the 800 MHz spectrum band.

a. The eventual removal of SRDs from 866 to 869 MHz reduces the total bandwidth available for a range of SRDs in Singapore from 8 MHz to 5 MHz. This will cause increased congestion and interference in the 920 to 925 MHz band which will result in a serious degradation of a substantial number of IoT applications, such as those using low power, low duty cycle SRDs.

6. Other comments on Section 2, 800 MHz Spectrum Band.

a. This is of particular concern as the number of IoT applications utilizing SRDs operating in these bands is growing rapidly, with a wide range of new applications being enabled

by standards such as IEEE802.15.4g (used by Wi-SUN devices) as well as other industry initiatives such as LoRa and Sigfox. We believe that there should be sufficient spectrum to support the growing number of SRD applications and devices.

- b. Wi-SUN Alliance would like to propose the allocation of an additional 5 MHz of spectrum for SRDs in the 915 to 920 MHz band, in addition to the current 920 to 925 MHz band, as this would help overcome the increased congestion resulting from the reduction in spectrum allocation from 866 to 869 MHz. It should be noted other regions have allocated additional spectrum for SRDs including [Australia](#) (915 to 928 MHz) and the [European Union](#) (915 to 921 MHz) have allocated additional spectrum for SRDs within the 915 to 928MHz band.

Conclusion

7. Wi-SUN Alliance appreciates IMDA's consultative process and acknowledges that there is a lack of spectrum in the bands below 1 GHz. However, our recommendation is to allocate more spectrum for SRDs in the sub 1 GHz band rather than reduce the spectrum available for SRDs. Providing additional spectrum in the 915 to 920 MHz band will offset the removal of the 866 to 869MHz spectrum with the added benefit that this spectrum will better align with European allocation, leading to increased product availability between Europe and Singapore.

Yours sincerely,
Phil Beecher

A handwritten signature in black ink that reads "P. Beecher" with a long horizontal flourish extending to the right.

President and CEO, Wi-SUN Alliance

Email: pbeecher@wi-sun.org

Mobile: +447765400948